



PATENT  
5681-12100/P7514

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/087,224

Filed: March 1, 2002

Inventors:

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Title: System and Method for  
State Data Back-up in a  
Distributed Data System

§ Examiner: Lin, Kelvin Y  
§ Group/Art Unit: 2142  
§ Atty. Dkt. No: 5681-12100

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Robert C. Kowert

Printed Name

July 5, 2006

Signature

Date

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested for the reason(s) stated below.

Applicants are in receipt of the Advisory Action mailed June 22, 2006. Claims 1-26 remain pending in this case. Reconsideration of the present case is earnestly requested in light of the following remarks. Please note that for brevity, only the primary arguments directed to the independent claims are presented, and that additional arguments, e.g., directed to the subject matter of the dependent claims, will be presented if and when the case proceeds to Appeal.

The Examiner rejected claims 1-26 as being anticipated by Everdell et al. (U.S. Publication 2002/0165961) (hereinafter "Everdell"). Applicants respectfully traverse the rejection for at least the following reasons.

Regarding claim 1, Everdell fails to disclose a **first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes**. Applicants notes that Everdell's method and system provides control of network resource allocations of multiple devices. More specifically, Everdell teaches methods for providing sufficient bandwidth to the devices to prevent starvation during high-traffic conditions as well as during single or

multiple device failures across the network. With regard to the above-noted feature of Applicants' claim 1, the Examiner cites paragraphs [0125] and [0121]; however, these paragraphs do not disclose the limitation of claim 1 recited above. For example, paragraph [0121] discloses that network manager systems (NMS) "are used to configure and manage multiple heterogeneous and/or homogeneous network devices". More particularly, this paragraph states:

To configure a network device, the network administrator uses the NMS to provision services. For example, the administrator may connect a cable to a port of a network device and then use the NMS to enable the port...To manage a network device, the NMS interprets data gathered by programs running on each network device relevant to network configuration, security, accounting, statistics, and fault logging and presents the interpretation of this data to the network administrator. The network administrator may use this data to, for example, determine when to add new hardware and/or services to the network device, to determine when new network devices should be added to the network, and to determine the cause of errors.

Thus, the NMS may be used to configure and manage devices on a network. Applicants assert that one skilled in the art would readily understand that the NMS is not a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. Managing a network, as in Everdell, does not disclose this feature of claim 1. Regarding paragraph [0125], Applicants note that Everdell teaches two configuration databases: a configuration relationship database and an NMS relationship database, which may be used to change various aspects of the configuration of the network. While Everdell does disclose a database for storing configuration information of a network system, Applicants assert that Everdell nowhere discloses a *first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers*. One skilled in the art understands that configuration information of a network is not a primary state of session data configured for access by a plurality of application servers.

In his Response to Arguments, the Examiner states:

In terms of session data attributes, the NMS server retrieves metadata from class table (Fig. 11w, element NMS database 1020). The metadata includes a list of simple attributes including host address, port address etc.. are used for the connection (Everdell, [0347], [0350]). [Sic]

A network connection is not the same as a session, as is well known by anyone of skill in the art to which the present invention pertains. Moreover, cited paragraphs of Everdell, [0347], [0350], describe metadata stored in classes associated with the NMS database, e.g., of a particular device. As disclosed by Everdell and cited by the Examiner, the metadata may include "a list of simple attributes including host address 1028a, port address 1028b, SNMP retry value 1028c, SNMP timeout value 1028d and a database port address 1028e for connecting to the configuration database within the network device". Applicants assert that the metadata associated with configuration of a particular device is not *a plurality of attributes comprised in session data* configured for access by a plurality of application servers. In the art of application servers, session data pertains to ongoing exchanges between a client and server. **Network configuration data, as in Everdell, is not session data.** Moreover, nowhere does Everdell disclose session data comprising a plurality attributes, let alone a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers. **The concept of session data accessed by application servers is very well understood in the art. No one of any skill in the art would consider the network configuration data of Everdell to be session data as recited in Applicants' claim 1.**

In the Advisory Action, the Examiner again asserts that the NMS database software teaches this feature of claim 1. More specifically, the Examiner argues that the computer system establishes the NMS server upon a first server power up. The Examiner seems to imply that this somehow teaches the first node of the distributed store **with a primary state of session data** recited in claim 1. As argued above, Everdell nowhere discloses session data. Furthermore, the DDL file is described numerous times in the description of Everdell. The DDL file is used

to set up the configuration database, e.g., using SQL commands to generate the tables where information is stored. The generation of a configuration database on a first power up of a computer system has nothing to do *whatsoever* with the limitation recited above.

Additionally, the Examiner reviewed the specification of the instant Application and stated: "Furthermore, in reviewing the specification, on page 16, paragraph [0053], it mentions the name of attributes 400, but does not describe the structure or the contents associated with the subject matter". The Examiner goes on to imply that the descriptions of attributes does not enable one skilled in the art to make the invention. However, Applicants note that the attributes of the session data are described numerous times throughout the specification, not just at paragraph [0053]. Moreover, the concept of attributes of session data is extremely well-understood in the art. Correspondingly, Applicants assert that one skilled in the art could implement the session data with attributes described in the specification and recited in the claims. Moreover, anyone of ordinary skill in the art would easily recognize that the Everdell does not pertain to attributes of session data.

With further regard to claim 1, Everdell fails to disclose **another node comprising a back-up instance of the primary state**. As argued above, Everdell fails to teach a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers. Correspondingly, Everdell cannot teach **another node comprising a back-up instance of the primary state** of the session data. Thus, for at least the reasons above, Everdell fails to disclose this feature of claim 1.

In the Advisory Action, the Examiner asserts that paragraph [0122] teaches this feature. More specifically, this paragraph discloses that the NMS programs interact with a single configuration repository (the NMS configuration database) and use a unified logical model and system to interact with data. Applicants agree that Everdell teaches the use of API and a single configuration database; however, this teaching is not pertinent at all to the recited limitation above. There is no mention whatsoever of another node comprising a back-up instance of the primary state in this paragraph or anywhere else in Everdell.

Furthermore, Everdell fails to disclose **comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state**. With regard to this feature of claim 1, the Examiner asserts in his Response to Arguments:

Everdell discloses that the network device keep track of important statistics including average client/server response time and response times to each network device. By looking at these statistics the network administrator tune the NMS to provide better overall management service.(Everdell, [0134]). And the code generation system provides data consistency across processes, centralized tuning and an abstraction of embedded configuration and NMS database (Everdell, [0166]). Therefore, Everdell discloses comparing the primary state to a statistic performance data and the code generation system generated the tuning code of embedded configuration of the primary state. [Sic]

Everdell teaches that the NMS server keeps track of important statistics such as which devices are the "heavy talkers" in the network, and that using these statistics, the network administrator may "determine when it is time to grow the management system by adding another server". However, Applicants assert that these statistics, and actions which a user can perform after examining them, have absolutely no relevance at all to comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. Additionally, Applicants agree that the code generation system provides "centralized tuning and an abstraction of embedded configuration and NMS databases" which ensures "that changes to their database schema do not affect existing processes"; however, this code generation system and abstraction layer is also irrelevant with respect to this feature of claim 1. The code generation system taught by Everdell nowhere mentions *or even hints at comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state*. Furthermore, the Examiner seems to imply that simply because Everdell states that the network administrator can choose to expand his network after looking at statistics of the current configuration state, and

that, in an unrelated paragraph, a code generation system exists that may provide centralized tuning and an abstraction layer, this feature of claim 1 is somehow disclosed. Applicants assert that the Examiner has not provided any evidence whatsoever that Everdell even hints at this element of claim 1, much less providing the required evidence that Everdell teaches the identical invention in the complete detail contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Moreover, Everdell nowhere teaches this limitation; thus, for at least the reasons provided above, Applicants assert that Everdell fails to disclose this feature of claim 1.

With further regard to claim 1, Everdell fails to disclose **synchronizing the back-up instance of the primary state with the primary state using the subset of the attributes of the session data**. As argued above, Everdell fails to teach *a primary state of session data, a back-up instance of the primary state, and comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state* as recited in the claims. Correspondingly, Everdell cannot teach this feature of claim 1. In his Response to Arguments, the Examiner cites paragraphs [0126] and [0127] of Everdell to teach this limitation. However, these paragraphs teach that changes made by the administrator in the configuration database may be automatically replicated in the NMS databases. More specifically, Everdell discloses:

Maintaining a primary or master repository of data within each network device ensures that the NMS and network device are always synchronized with respect to the state of the configuration. Replicating changes made to the primary database within the network device to any secondary data repositories, for example, NMS database 61, ensures that all secondary data sources are quickly updated and remain in lockstep synchronization.

Applicants note that Everdell also discloses:

Instead of automatically replicating changes to the NMS database through active queries, only certain data, as configured by the network administrator, may be replicated. Similarly, instead of immediate replication, the network administrator may configure periodic replication. For example, data from the master embedded database (i.e., the configuration database) can be uploaded daily or hourly. In addition to the periodic, scheduled uploads, backup may be done anytime at the request of the network administrator.

Thus, Everdell teaches that changes made in the configuration database may be replicated to the NMS database. Additionally, the network administrator may specify that only certain data be replicated, and that the update may occur periodically. However, Everdell, neither in these paragraphs, nor anywhere else, teaches synchronizing the back-up instance of the primary state with the primary state using the subset of the attributes of the session data as recited in claim 1. Again, the Examiner has provided no evidence whatsoever that the replication process taught by Everdell teaches the synchronization taught in claim 1. Moreover, Applicants assert that Everdell nowhere teaches the synchronization process of the back-up instance with the primary state using the subset of attributes of the session data recited in claim 1. As argued above, the configuration data stored in the databases are not session data much less using the subset of attributes of the session data to perform the synchronization as recited in claim 1. Thus, for at least the reasons provided above, Everdell fails to disclose this feature of claim 1.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As discussed above, Everdell fails to disclose a system configured with a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. Furthermore Everdell completely fails to mention a back-up instance of the primary state of the session data. Everdell also fails to generate a

subset of attributes of the session data that have been modified from the primary state and synchronize the back-up instance of the primary state with the primary state using the subset of the attributes of the session data.  
Therefore, Everdell clearly cannot be said to anticipate claim 1.

For at least the reasons presented above, the rejection of claim 1 is not supported by the prior art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 1 also apply to claims 7, 11, 15 and 21.

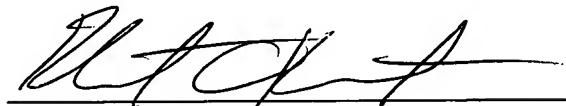
Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. For example, for at least the reasons outlined in the previous Office Action Responses, the rejection of claims 7 is not supported by the prior art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

In light of the foregoing remarks, Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-12100/RCK.

Also enclosed herewith are the following items:

- Return Receipt Postcard
- Notice of Appeal

Respectfully submitted,



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Date: July 5, 2006